

Serial No. 10/562,315

KAS-5104

Amendment

Responsive to Office Action dated October 30, 2008

REMARKS**Pending Claims**

Claims 1-14 are pending. Claims 4-7, and 12-14 have been canceled without prejudice or disclaimer. Claims 1-3, and 8-11 have been amended. No new matter has been added.

Claim Rejections Under 35 U.S.C. §102

Claims 1-14 are rejected under 35 U.S.C. §102(e) as being anticipated by Hagenbuch, U.S. Patent No. 6,546,363. Applicants have amended claim 1 and made claim 11 an independent claim that includes the limitations added to claim 1. Support for the amendments to claims 1 and 11 is provided in the Specification, for example page 29, line 27 – page 30, line 16 and with reference to Figures 2, 3 and 7.

As amended, claims 1 and 11 set forth a first storage unit (e.g., 67, Fig. 4) for storing operational data regarding the construction machine; and a second storage unit (e.g., 66) for storing a first program for extracting a cumulative run time of a engine from among the operational data stored in the first storage unit, a second program for extracting a per-part operating time per unit time from among the operational data stored in the first storage unit, and a third program for extracting alarm data and snapshot data regarding a relevant alarm from among the operational data stored in the first storage unit. Further, claims 1 and 11

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have been amended to include control unit for reading a data extracting program from among the programs stored in the second storage unit corresponding to a remote operation made from a supervising side via information communication, extracting top priority operational data from among the operational data stored in the first storage unit in accordance with the data extracting program, and transmitting the top priority operational data to the supervising side via information communication.

According to the embodiments of the invention, plural kinds of operational information regarding the construction machine are stored as operational data in the first storage unit, and top priority operational data is selected by the supervising side (i.e., a customer or a manufacturer, etc.) from among the plural kinds of operational data stored in the first storage unit, and the top priority operational data is extracted and transmitted to the supervising side by the second storage unit and the control unit. In this regard, the top priority operational data can be selectively transmitted to the supervising side without the need to also transmit other detailed operational data regarding the operating status in order to reduce the transmission and analysis time, and consequently the downtime. That is, there is a disadvantage in the prior art in that a very long processing time is required to make a diagnosis based on a large amount of operational data that is collected and transmitted. during this time, the hydraulic excavator or construction machine is required to be stopped, i.e. not working while processing is executed to determine the situation. This suppresses the productivity and causes inefficiency in the operation of the construction machine. See the Specification, for example page 1, line 17 – page 2, line 3 and page 5, line 18 – page 19, line

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14 of the specification, for example.

The claims are not anticipated by Hagenbuch. In particular, Hagenbuch does not disclose a control unit as defined in amended claims 1 and 11. The control unit of the claimed invention is comparable to a processor 41 (e.g., Fig. 2A) in Hagenbuch. However, the processor 41 of Hagenbuch does not read a data extracting program from among programs stored in a second storage unit corresponding to a remote operation made from a supervising side via information communication, as claimed. Further, Hagenbuch does not disclose extracting top priority operational data from among the operational data stored in a first storage unit in accordance with the data extracting program. Further, the reference does not disclose transmitting the top priority operational data to the supervising side, as claimed.

In Hagenbuch, a lap top personal computer 63 is disclosed to be coupled to processor 41 for downloading data contained in the RAM 47. See column 7, lines 20-25 of Hagenbuch. Hagenbuch discloses that the processor 41 can download data held in the RAM 47 in response to polling from a base station and also serve to broadcast a distress signal that alerts other personnel. However, Hagenbuch does not disclose the type of data that the base station extracts from the RAM 47, and therefore the reference is silent with respect to extracting top priority operational data from among the operational data stored in the first storage unit in accordance with the data extracting program. See column 7, lines 37-46 of Hagenbuch.

Hagenbuch discloses the processor 41 outputs some data provided to a printer 77. The data provided to the printer 77 represents the ten highest or lowest data and includes additional information such as the name of the operator, the time of day when the highest

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payload was recorded, etc. See column 18, lines 45-60 of Hagenbuch. However, the disclosure of Hagenbuch is insufficient to anticipate the invention as claimed, and therefore the rejection under 35 U.S.C. §102(e) should be withdrawn.

Applicants have amended claim 2 to set forth that the second storage unit stores a fourth program for computing a daily data from among the operational data stored in the first storage unit, and a fifth program for computing a life data and a daily data from among the operational data stored in the first storage unit. Support for the amendment is provided in the Specification, for example at page 29, line 27 – page 30, line 16 with respect to Figures 2, 3 and 7. Additionally, Applicants have amended claim 3 to set forth that the control unit can be changed with an input applied by an operator of a construction machine from a keypad or an input applied from a portable terminal connected to the operational information managing apparatus, or the remote operation can be made from the supervising side via the information communication. Support for the amendment to claim 3 is provided in the Specification. See page 30, line 16 – page 31, line 7 of the Specification.

Claim 9 has been amended to set forth that the control unit sends a snap shot start signal to a display control unit for executing control related to the display made on the display means on an occurrence of an alarm being detected. See page 44, line 16 – page 45, line 1 of the Specification for support of the amendment to claim 9.

Dependent claims 2, 3 and 8-10 are allowable over Hagenbuch, at least for depending from base claim 1, which is asserted to be allowable for the foregoing reasons. Further, claim 11 is asserted to be patentable for the same reasons that claim 1 has been asserted to be

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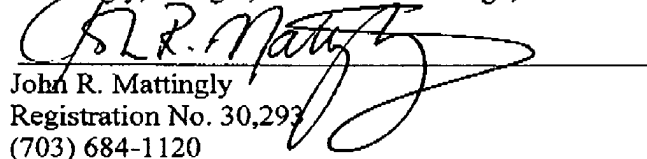
patentable over Hagenbuch and the remainder of the art of record. Accordingly, Applicants respectfully assert that pending claims 1-3 and 8-11 are in condition for allowance, and therefore the rejection under 35 U.S.C. §102(e) should be withdrawn.

Conclusion

In view of the foregoing, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

Mattingly, Stanger, Malur & Brundidge, P.C.


John R. Mattingly
Registration No. 30,293
(703) 684-1120

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